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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,322	11/04/2003	Ki-Sang Kim	5649-840DV	5293

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MYERS BIGEL SIBLEY & SAJOVEC
PO BOX 37428
RALEIGH, NC 27627

EXAMINER

FOX, CHARLES A

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/701,322

Applicant(s)

KIM, KI-SANG

Examiner

Charles A. Fox

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 2, 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 10, 11 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Claims 5-9 and 14-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention or species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 28, 2005.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 4 and 13 are both dependent upon a cancelled claim. In the art rejections below they are being treated as being dependent upon claims 1 and 10 respectively as that closely follows the claim structure that was previously presented in this application. Clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4,10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 11-145243 in view of Howells et al. Regarding claims 1 and 10

Japanese Patent 11-145243 teaches a device for conveying wafer cassettes along a plurality of wafer processing devices aligned along an axis, said device comprising:

- a horizontal conveyor (111) positioned adjacent to and below the plurality of process devices;

- a vertical conveyor (102) for raising the wafer cassette from the horizontal conveyor to the process device load port;

- a controller for automatically moving the various components of the overall system automatically;

wherein the conveyors operate within a clean area. Japanese Patent 11-145243 does not teach an individual loading elevator for each process device. Howells et al. US 6,183,186 teaches a process device (12) with a loading station (10) comprising:

- a housing;

- an inlet in said housing for accepting transported wafer cassettes;

- an elevator (20) for lifting and lowering wafer cassettes (16);

- said elevator having two guides (102) mounted on the walls of said housing;

- wherein said guides are actuated by a ball and lead screw assembly;

- wherein each guide has a support assembly (120,150) attached thereto and extending toward each other.

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Japanese Patent 11-145243 with individual load housings as taught by Howells et al. in order to decrease the amount of clean area

Art Unit: 3652

the production facility will require, thereby reducing operating expense for the overall facility.

Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 11-145243 and Howells et al. as applied to claims 1 and 10 above, and further in view of Narisawa. Japanese Patent 11-145243 teaches the limitations of claims 1 and 10 as above, it does not teach the horizontal conveyor as being a roller conveyor. Narisawa US 5,904,239 teaches a roller conveyor (12) for use in a clean room. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Japanese Patent 11-145243 and Howells et al. with a conveyor as taught by Narisawa in order to decrease the amount of debris generated by the conveyor, thus making it easier to maintain a high cleanliness level in the transport area.

Response to Amendment

The amendments to the claims filed on February 2, 2006 have been entered into the record.

Response to Arguments

Regarding the claim warnings the applicant is persuasive, but the differences in the mounting of the vertical conveyor are conventional in both regards and the previous rejections still apply. Applicant's arguments filed February 2, 2006 have been fully considered but they are not persuasive. Regarding the gripping arms the examiner is allowing a very broad view of gripping arms as the applicant only shows supports for a wafer cassette in the elected species. Regarding Howells et al. not teaching this

Art Unit: 3652

element the applicant is directed to figure 3 of the reference where a wafer cassette elevator is shown that meets each limitation of claims 1 and 10 pertaining to the vertical conveyor. The elements have been more clearly pointed out to applicant above. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., means for removing a cassette from the vertical conveyor) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached between 7:00-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

CAF
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4-12-06